

IN THE SPECIFICATION:

Kindly amend the paragraph beginning at Page 4, line 10 as follows:

Other objects and advantages of the present invention will become more apparent from the following detailed description of preferred embodiments, when read in conjunction with the accompanying drawings wherein like elements have been represented by like reference numerals and wherein:

A¹ Fig. 1 illustrates a wall assembly built in accordance with the present invention;

Fig. 2 illustrates a floor-ceiling assembly built in accordance with the present invention;

Fig. 3 illustrates a conventional wall assembly;

~~Fig. 4a-b~~ Figs. 4a-4c illustrate conventional methods of sound control in wall assemblies; and

Fig. 5 illustrates a combination sound-deadening board in accordance with the present invention.

Kindly amend the paragraph beginning at page 5, line 1 as follows:

A² Fig. 1 illustrates a wall assembly 100 including wall studs 101 and a combination sound-deadening board 103. Studs 101 may be standard wall studs, made of either wood or metal (e.g., steel), and may be lightweight (25 gauge) or heavyweight (20, 18, or 16 gauge).

As seen in the figure, board 103 is attached to studs 101 in such a way that sound-deadening

A² side 109 is positioned between skin side 111 and each stud 101. In this way, sound-deadening side 109 reduces vibration transmission between side 111 and the studs 101, resulting in enhanced sound isolation between rooms located on either side of assembly 100. Analytical modeling and laboratory testing has shown that optimum sound control performance results when sound-deadening side 109 has a Young's Modulus (bulk modulus of elasticity) between 50 and 600 pounds per square inch, a value much lower than the stiffness values associated with conventional materials used in building wall or floor-ceiling assemblies (e.g., gypsum boards and wood studs). Modeling and testing also showed that materials with an equivalent Young's Modulus (bulk modulus of elasticity) between 50 and 500 pounds per square inch, were found to offer broadband improvements with a maximum of 6 to 8 dB improvement at the 1600 Hz one-third octave band. More specifically, materials with an equivalent Young's Modulus (bulk modulus of elasticity) between 500 to 600 pounds per square inch, were found to offer broadband improvements with a maximum of 3 to 4 dB improvement at the 1600 Hz one-third octave band. Therefore, materials with Young's Moduli within the described range offer the best sound control performance while materials with higher Young's Moduli offer some improvement in terms of sound transmission loss.
